



REQUEST FOR INFORMATION (RFI)
#GRORFI01

ENVIRONMENTALLY PREFERABLE CLEANING PRODUCTS
COMMONWEALTH OF MASSACHUSETTS
OPERATIONAL SERVICES DIVISION
August 25, 1997

INTRODUCTION

This request for information (RFI), issued pursuant to 801 CMR 21.00, is designed to solicit comments and advice from all interested parties with regard to draft technical specifications for "Environmentally Preferable Cleaning Products." It is the intent of the Commonwealth to review these comments and consider how to best integrate the purchase of such products into state facility programs.

While the Commonwealth has not determined the exact course of action, these draft specifications and any comments received will be reviewed by the Grocer Procurement Management Team, the Operational Services Division (OSD), and a team of other environmental and public health agencies, in an effort to determine the appropriate next steps. Such steps could include the development of a Request for Response (RFR) for Environmentally Preferable Cleaning Products, the initiation of a pilot testing program, the integration of such products into Statewide Contracts, or some combination of each. Respondents to this RFI should consider commenting on these issues as well as on the specifications themselves.

This effort is in line with Executive Order #350, which, in 1993 established the Clean State Program and required state agencies to develop environmental compliance and pollution prevention programs, including a "source reduction and waste minimization program," as well as "a program for...using environmentally up-to-date equipment, materials and processes; and other appropriate preventive, environmentally beneficial activities...." Also behind this effort is the Toxics Use Reduction Act of 1989 which, through the TURA list of chemicals, targeted hundreds of toxic chemicals for use reduction in the Commonwealth. The TURA list has considerable import in Massachusetts due to its comprehensive nature (it includes the Clean Air Act list of 188 Hazardous Air Pollutants, the Massachusetts Water Resource Authority list of chemicals regulated from industry sewer discharge, virtually all chemicals from the list of Bioaccumulative Chemicals of Concern in the Great Lakes Quality Initiative, the Clean Water Act, and the Superfund Reauthorization Act [SARA title III] chemicals), and because it is used by the Commonwealth to focus industry efforts on Pollution Prevention and Toxics Use Reduction.

It is the goal of this program to develop appropriate specifications for environmentally preferable cleaning products in order to help state agencies and political subdivisions reduce the amount of toxic chemicals which may be used in their facilities, improve working conditions and indoor air quality, as well as reduce the amount of hazardous chemicals which must be stored and/or disposed.

The draft specifications below consist of several proposed requirements (listed as "mandatory specifications") and a number of preferences (listed as "desired specifications"). As currently written, to be considered eligible, products would have to meet all mandatory specifications, while varying levels of points would be given to those products which meet other desired specifications. Those products which meet the mandatory health and environmental specifications and which receive the highest number of points would then accepted for use by the Commonwealth. In addition to the health and environmental specifications, the Commonwealth intends to focus on vendor past performance and experience with these types of products, however, this RFI is requesting comments only on the health and environmental components of this program.

DISCLAIMER

Responding or not responding to this RFI will not affect a vendor's eligibility to provide products to the Commonwealth in the future. The proposed specifications and requirements in this RFI are only preliminary in nature and are subject to modifications. Any future documents, when issued, may have different and/or additional business and technical specifications than those contained in this RFI.

INSTRUCTIONS FOR RESPONSE

1. There are no restrictions as to who may submit comments in response to this RFI.
2. Six (6) copies of all comments and any other materials should be submitted double sided, if mailed, to:
Eric Friedman
Operational Services Division
Ashburton Pl., Rm 1017
Boston, MA 02108
3. Respondents should avoid where possible any extraneous materials which are not relevant or any difficult-to-recycle items such as plastic sheets or gbc binding.
4. Comments may also be submitted via email to eric.friedman@state.ma.us
5. The deadline for submission of comments is: 3:00 p.m., E.S.T. on Wednesday, September 17, 1997.
6. Vendors who may wish to offer their cleaning products as an environmentally preferable alternative are encouraged to fill out the draft specifications below and return it with any other comments and/or materials. All others are encouraged to provide comments in response to these draft specifications regardless of whether actual products may be offered.
7. In addition to written comments, respondents may include a description of products which could be potentially offered to the Commonwealth, MSDS information or any other materials related to the draft specifications.
8. To request clarification of any item in this RFI, or any additional information, please call Margie Flanders at 617-727-7500 x313, or Eric Friedman at 617-727-7500 x351.

**DRAFT SPECIFICATIONS
ENVIRONMENTALLY PREFERABLE CLEANING PRODUCTS**

I. VENDOR INFORMATION

Vendor Name _____

Contact Name _____

Address _____

Phone _____ Fax _____ Email _____

Manufacturer Name (if different) _____

Manufacturer Contact: _____

Phone _____ Fax _____ Email _____

II. PRODUCTS OFFERED

Vendors are encouraged to offer as wide a selection of products as possible, however, to be eligible for award, vendors must offer at a minimum the following products:

- | | |
|------------------------|---------------------|
| 1. All-purpose cleaner | 3. Bathroom cleaner |
| 2. Floor cleaner | 4. Glass cleaner |

Vendors must list below all products being offered.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

Note

Bidders must fill out sections III and IV for each product being proposed unless different products contain the exact same formulation, in which case Mandatory and Desired Specifications can be applied to multiple products. Bidders must note on each form to which product the questionnaire refers.

This form is being submitted for the following product category(ies): _____

The name of the product(s) is: _____

Unless otherwise noted, all specifications refer to the product in its delivered concentrated form.

III. MANDATORY SPECIFICATIONS

To be eligible for award, products must meet all mandatory specifications.

1. In accordance with Massachusetts law, products must not contain phosphates in an amount over 0.5% by weight (MGL c. 111, Paragraph 5R & 105 CMR 680.000 - see Attachment A)

Does this product contain phosphates in an amount greater than 0.5%?

☐ Yes ☐ No

2. All products (at recommended use dilution) must not exceed the Volatile Organic Compound (VOC) limits for the appropriate product category in effect in Massachusetts (310 CMR 7.25 (12) - see Attachment A).

Does this product comply with Massachusetts VOC regulation?

☐ Yes ☐ No

3. All products must not contain any ingredient which is listed on the Toxic Use Reduction Act (TURA) list (see 301 CMR 41.03 - full list is in Attachment B)

Does this product contain any ingredient listed in TURA?

☐ Yes ☐ No

IV. DESIRED SPECIFICATIONS

To receive points in this section, Bidders must answer questions accurately and provide documentation which certifies compliance with the appropriate specifications. Where such documentation does not exist, Bidders must provide a written, signed statement which certifies that all information provided in their response is accurate and true.

A. Human Health and Safety

1. **What is the pH of this product?**

☐ less than 2.0 ☐ between 2.0 and 5.0 ☐ between 5.0 and 9.0 ☐ between 9.0 and 12.5 ☐ greater than 12.5

Massachusetts preference is for products to have a pH between 5 and 9

2. **Based on the "Closed Cup Method," what is the flash point of this product?**

☐ less than 140F ☐ between 140F and 200F ☐ greater than 200F

Massachusetts preference is for a flash point higher than 200F

3. **Product Toxicity**

- If a mixture/product has not been tested as a whole to determine its hazards, please base your answer on test results for the ingredient with the lowest LD50 or LC 50, but only for an ingredient which comprises one percent or greater of the mixture
- all tests must be in accordance with those described in 29 CFR 1910.1200 Appendix A - Health Hazard Definitions (see Attachment A)

a. What is the Lethal Dose50 (LD50) of this product for oral exposure?

☐ less than or equal to 50 mg/kg ☐ 50 mg/kg to 500 mg/kg ☐ greater than 500 mg/kg

☐ data based on whole product testing ☐ data based on single ingredient testing

Massachusetts preference is for whole product data to demonstrate a LD50 greater than 500 mg/kg

b. What is the Lethal Dose 50 for skin exposure?

- ☐less than or equal to 200 mg/kg ☐200 mg/kg to 1000 mg/kg ☐greater than 1000 mg/kg
☐data based on whole product testing ☐data based on single ingredient testing

Massachusetts preference is for whole product data to demonstrate a LD50 greater than 1000 mg/kg

c. What is the Lethal Concentration₅₀ for inhalation exposure?

- ☐less than or equal to 200 ppm ☐200 ppm to 2000ppm ☐greater than 2000 ppm
☐data based on whole product testing ☐data based on single ingredient testing

Massachusetts preference is for whole product data to demonstrate a LC₅₀ greater than 2000 ppm

4. Are any ingredients in this product on the Massachusetts Substance List from the Massachusetts Right-to-Know Act? (105 CMR 6.70 - see Attachment C)

- ☐Yes ☐No

Massachusetts preference is that no ingredients appear on the Mass. Substance List

5. What is the %VOC by weight in this product at recommended use dilution?

- ☐less than or equal to 10% ☐greater than 10% _____list specific VOC content

Massachusetts preference is that the VOC content be less than 10% by weight; however, all products must still meet the Massachusetts VOC requirements, even if less than 10% (see Attachment A)

6. Dyes & Fragrances

a. Is this product available without any dyes?

- ☐Yes ☐No

Massachusetts preference is that products be available without dyes

b. Is this product available without any added fragrances?

- ☐Yes ☐No

Massachusetts preference is that products be available without fragrances

B. Ecological Stressors

1. Are any of the product ingredients listed by the Montreal Protocol as an ozone-depleting substance?

(USCA 213 Sec. 601-618 - see Attachment D)

- ☐Yes ☐No

Massachusetts preference is that no ingredients be an ozone-depleting substance

2. Does each organic ingredient in this product meet the OECD definition of "Readily Biodegradable"? (see definition in Attachment A)

- ☐Yes ☐No

Massachusetts preference is that all product ingredients meet the OECD definition of readily biodegradable

3. Does this product contain APEOs (Alkylphenyl Ethoxylates)?

- ☐Yes ☐No

Massachusetts preference is for products to contain no APEOs

C. Packaging and Natural Resources

- 1. What percentage of the cleaning product is derived from plant matter?** (do not include water as plant matter in calculations)

☐ less than 10% ☐ 10-39% ☐ 40-59% ☐ 60-79% ☐ 80-95% ☐ 96-100%

Massachusetts preference is for the product to contain as high a level of plant matter as possible

- 2. Is your primary and/or secondary packaging made from recyclable material?**

[Primary product packaging includes containers that directly contain the product (e.g., bottles and jugs). Secondary packaging is other packing materials (e.g., shipping cartons, wrap, and packing material)] Please indicate whether packaging is #1 or #2 plastic, corrugated cardboard, or other recyclable material

☐ Yes ☐ No

Specify Material(s) _____

Massachusetts preference is for packaging to be easily recyclable

- 3. Does packaging contain post-consumer recycled content?**

☐ Yes ☐ No

If yes, please list packaging type (e.g. cardboard) and percent of post-consumer (p.c.) content.

_____ Type _____ p.c. Content %

_____ Type _____ p.c. Content %

_____ Type _____ p.c. Content %

Massachusetts preference is for packaging to contain as high a level of recycled content as possible

- 4. Is a system in place to return empty containers and refill with original product, and/or will the vendor collect and recycled used packaging?**

☐ Yes ☐ No

Massachusetts preference is for cleaner containers to be refillable and for vendors to take back packaging.

- 5. What efforts has your company (include both distributors and/or manufacturers) made to minimize the environmental impacts of your operations?**

We are particularly interested in pollution prevention, recycling, use of environmentally preferable products, etc. (attach additional material if necessary) _____

Massachusetts preference is for programs to be in place which minimize environmental impacts

- 6. Is this product available in concentrated form (i.e. less than 20% water by volume)?**

☐ Yes ☐ No

Massachusetts preference is for cleaners to be available in concentrated form

- 7. Does this product come with dispensing equipment to minimize exposure to concentrate?**

☐ Yes ☐ No

Massachusetts preference is for dispensing equipment to be available

D. Training & Materials

- 1. Does your company offer on-site training for use of products offered?**

If yes, please attach a description of such training.

☐ Yes ☐ No

Massachusetts preference is for vendors to offer on-site training.

- 2. Does your company provide users of your products with labels in multiple languages which clearly identify product name, and use directions?**

☐ Yes ☐ No

Massachusetts preference is for labels to be offered at least in English and Spanish.

Please list available languages _____

ATTACHMENT A - DEFINITIONS

- **Phosphates** are defined as phosphates and phosphonates, including sodium and potassium salts. All phosphate contents must conform to Massachusetts law of less than 0.5% at use dilution.
- A **Volatile Organic Compound** is any compound of Carbon which participates in atmospheric photochemical reactions. VOC is measured by the applicable reference test methods specified in 40 CFR 60 Appendix A. This definition includes all organic compounds except the following: (From 310 CMR, definitions)

<ul style="list-style-type: none"> • Carbon monoxide • Carbon dioxide • Carbonic acid • metallic carbides or carbonates • ammonium carbonate • methane • ethane • methyl chloroform (1,1,1-trichloroethane) • methylene chloride (dichloromethane) • freon-113 (trichlorotrifluoroethane) • CFC-11 (trichlorofluoromethane) • CFC-12 (dichlorodifluoromethane) • CFC-22 (chlorodifluoromethane) • FC-23 (trifluoromethane) • CFC-114 (dichlorotetrafluoroethane) • CFC-115 (chloropentafluoroethane) • HFC-123 (2,2-dichloro-1,1,1-trifluoroethane) • HFC-124 (2-chloro-1,1,1,2-tetrafluoroethane) • HFC-125 (pentafluoroethane) • HFC-134 (1,1,2,2-tetrafluoroethane) 	<ul style="list-style-type: none"> • HFC-134a (1,1,1,2-tetrafluoroethane) • HCFC-141b (1,1-dichloro-1-fluoroethane) • HCFC-142b (1-chloro-1,1-difluoroethane) • HFC-143a (1,1,1-trifluoroethane) • HFC-152a (1,1-difluoroethane) • Cyclic, branched, or linear, completely fluorinated alkanes • Cyclic, branched, or linear, completely fluorinated ethers with no unsaturations • Cyclic, branched or linear completely fluorinated tertiary amines with no unsaturations • Cyclic, branched, or linear completely methylated siloxanes • acetone • parachlorobenzotrifluoride (PCBTF) • Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine
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VOC limits for product categories in accordance with 40 CFR part 59 and 310 CMR 7.25 are as follows:

Air fresheners		Floor polishes/waxes	
Single-phase aerosol	70	for flexible flooring	7
Double-phase aerosol	30	for nonresilient flooring	10
Liquid/pump sprays	18	wood floor wax	90
Solids/gels	3	Furniture maintenance products	
Bathroom and tile cleaners		aerosol	25
Aerosol	7%	General purpose cleaners	10
All other forms	5	Glass cleaners	
Dusting Aids		aerosols	12
Aerosols	35	all other forms	8
All other forms	7	Laundry prewash	
		aerosol/solid	22
		all other forms	5
		Laundry starch products	5

- **Health Hazard Definition - 29 CFR 1910.1200**

A chemical's or product's median lethal dose (LD50) shall be determined in the same way as described for determination of toxicity in 29 CFR 1910.1200 Appendix A (Health Hazard Definitions). This is interpreted as follows:

- ⇒ For oral LD50 the chemical or product shall be administered orally to albino rats weighing between 200 and 300 grams each, and shall be calculated as milligrams substance required per kilogram of body weight.
- ⇒ For dermal (skin) LD50 the chemical or product shall be administered by continuous contact for 24 hours with the bare skin of albino rabbits weighing between two and three kilograms each, and shall be calculated as milligrams substance required per kilogram of body weight.
- ⇒ For LC50 (median lethal concentration in air) the concentration shall be calculated as parts per million (ppm) by volume of gas or vapor, and 1 ppm shall be considered equivalent to 1 milligram of mist, fume, or dust per liter of air. The substance shall be administered by continuous inhalation for one hour to albino rats weighing between 200 and 300 grams each.

- OECD definition of **ready biodegradability** includes achieving the following parameters on one of the following tests:

DOC Die-Away Test	60% Theoretical CO2 Evolution
MITI I Test	60% Theoretical Oxygen Demand
Closed Bottle Test	60% Theoretical Oxygen Demand
CO2 Evolution Test	60% Theoretical CO2 Evolution
Modified OECD Screening Test	70% Dissolved Organic Carbon
Manimetric Respirometry Test	60% Theoretical Oxygen Demand

These values must be met within 10 days of reaching 10% and must also be met within 28 days of the beginning of the test.

More specific technical information on the OECD definition of Readily Biodegradable is available from the EPA. These guidelines are available electronically from the EPA Public Access Gopher (gopher.epa.gov) under the heading ``Environmental Test Methods and Guidelines" (Fate Transport and Transformation Test Guidelines, draft guidelines 835.3110) or in paper by contacting the OPP Public Docket at (703) 305-5805 or by e-mail: guidelines@epamail.epa.gov. They are also available in ASCII text format at the world wide web address http://www.epa.gov/docs/OPPTS_Harmonized/835_Fate_Transport_and_Transformation_Test_Guidelines/Drafts/835-3110.txt.html

ATTACHMENT B TOXICS USE REDUCTION ACT LIST

Because of the length of this list, prospective respondents to this RFI should attempt to access this list on line at:

- ⇒ www.comm-pass.com
- ⇒ go to open solicitations [by category]
- ⇒ go Food/Groceries Supplies & Services
- ⇒ go to Environmentally Preferable Cleaning Products Request for Information
- ⇒ go to TURA List

While respondents are encourage to obtain this document on line, if you are not able to do so, please call the Comm-PASS help desk at 1-888-MA STATE for a list of Comm-PASS access sites or call Margie Flanders at 617-727-7500 x313 for a hard copy.

ATTACHMENT C MASSACHUSETTS SUBSTANCE LIST FROM THE MASSACHUSETTS RIGHT-TO-KNOW ACT

- ⇒ www.comm-pass.com
- ⇒ go to open solicitations [by category]
- ⇒ go to Food/Groceries Supplies & Services
- ⇒ go to Environmentally Preferable Cleaning Products Request for Information
- ⇒ go to Mass. Substance List

While respondents are encourage to obtain this document on line, if you are not able to do so, please call the Comm-PASS help desk at 1-888-MA STATE for a list of Comm-PASS access sites or call Margie Flanders at 617-727-7500 x313 for a hard copy.

ATTACHMENT D
OZONE DEPLETING CHEMICALS FROM THE MONTREAL PROTOCOL

CAS#	Chemical name
000056-23-5	Carbon Tetrachloride
000071-55-6	1,1,1-Trichloroethane (Methyl Chloroform)
000075-43-4	Dichlorofluoromethane [HCFC-21]
000075-45-6	Chlorodifluoromethane [HCFC-22]
000075-63-8	Bromotrifluoromethane [Halon 1301]
000075-68-3	1-Chloro-1,1 difluoroethane [HCFC-142b]
000075-69-4	Trichlorofluoromethane (Trichloromonofluoromethane) [CFC-11]
000075-71-8	Dichlorodifluoromethane [CFC-12]
000075-72-9	Chlorotrifluoromethane [CFC-13]
000076-13-1	Freon 113 [CFC-113]
000076-14-2	1,2 Dichloro-1,1,2,2-Tetrafluoroethane [CFC-114]
000076-15-3	Monochloropentafluoroethane [CFC-115]
000124-73-2	1,2-Dibromotetrafluoroethane [Halon 2402]
000306-83-2	2,2-Dichloro-1,1,1-trifluoroethane [HCFC-123]
000353-59-3	Bromochlorodifluoromethane [Halon 1211]
000354-23-4	1,2-Dichloro-1,1,2-trifluoroethane [HCFC-123a]
000354-25-6	1-Chloro-1,1,2,2,-tetrafluoroethane [HCFC 124a]
0000354-58-5	Trichlorotrifluoroethane [CFC-113]
000593-70-4	Chlorofluoromethane [HCFC-31]
000812-04-4	1,1-Dichloro-1,2,2-trifluoroethane [HCFC-123b]
001717-00-6	1,1-Dichloro-1-fluoroethane [HCFC-141b]
001320-37-2	Dichlorotetrafluoroethane [CFC-114]
002837-89-0	2-Chloro-1,1,1,2-tetrafluoroethane [HCFC-124]
025497-30-7	Dibromotetrafluoroethane [Halon 2402]
034077-87-7	Dichlorotrifluoroethane
063938-10-3	Chlorotetrafluoroethane
090454-18-5	Dichloro-1,1,2-trifluoroethane